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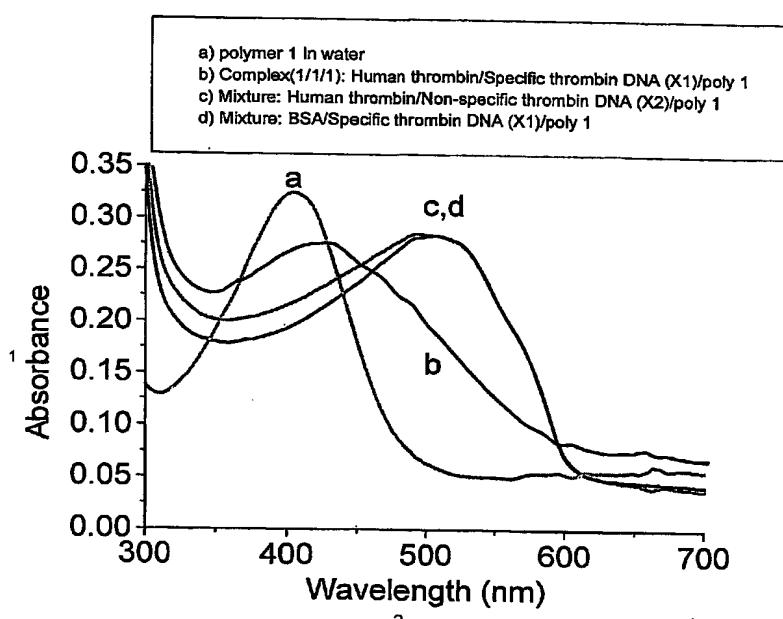
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(54) Title: OPTICAL SENSORS BASED ON HYBRID APTAMER/CONJUGATED POLYMER COMPLEXES



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(57) Abstract: An optical sensor for detecting a target comprising a singlestranded aptamer complementary to said target, and a water-soluble cationic polythiophene derivative of the following formula: wherein "n" is an integer ranging from 6 to 100, is disclosed. The optical sensor allows for the detection of targets selected from the group consisting of potassium ions, small organic molecules, amino acids, proteins, whole cells and nucleotides. The detection is based on the formation of hybrid anionic aptamer/cationic poly-thiophene complexes.

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